

## **REMARKS/ARGUMENTS**

### **1.) Withdrawal of Prior Claim Rejections**

The Applicants thank the Examiner for recognizing that the previously-cited combination of references fails to render the claimed invention obvious and withdrawing the rejection of all pending claims as anticipated by Kamm. In the present office action, the Examiner now rejects claims 50-53, 55, 57-60 and 62 as being anticipated by Grube, *et al.* (U.S. Patent No. 5,583,869), and claims 56 and 63 as being unpatentable over Grube in view of Heller (U.S. Patent Publication No. 2003/0043844 A1). For the reasons that follow, the pending claims are also patentable over those references.

### **2.) Claim Rejections – 35 U.S.C. §102(b)**

The Examiner has rejected claims 50-53, 55, 57-60 and 62 as being anticipated by Grube, *et al.* (U.S. Patent No. 5,583,869). The Applicants traverse the rejections.

It must be remembered that anticipation requires that the disclosure of a single piece of prior art reveals **every** element, or limitation, of a claimed invention. Furthermore, the limitations that must be met by an anticipatory reference are those set forth in each statement of function in a claims limitation, **and such a limitation cannot be met by an element in a reference that performs a different function, even though it may be part of a device embodying the same general overall concept.** Whereas Grube fails to anticipate each and every limitation of claim 50, that claim is not anticipated thereby.

Claim 50 recites:

50. A method of channel resource allocation in a wireless communications system, said method comprising the steps of:

sniffing one or more data transmissions to or from a data provider for information within one or more application-level data packets, the information being related to application-level data object size; and

allocating radio resources as a function of said data object size, wherein said step of allocating radio resources comprises the step of predicting a future data rate from the information related to data object size. (emphasis added)

The Applicants' invention is directed to allocation of channel resources in a wireless communications system. To efficiently allocate channel resources, the invention sniffs data transmissions for information related to application-level data object size. Based on such data object size, a future data rate is predicted and appropriate radio resources are allocated. Grube fails to teach that combination of elements.

In rejecting claim 50, the Examiner asserts that Grube teaches "allocating radio resources [based on] predicting a future data rate from [ ] information related to data object size." To support that view, the Examiner states that "resources are allocated based on needs at time t+0 which involves increasing throughput rate as noted in column 6 referencing column 6, lines 15-16, which is further based on/proportional to the predicted message completion time as noted in figures 2 and 3." The Applicants can find no teaching in Grube regarding allocating based on needs at time "t+0." What Grube **does teach** is allocating resources based on a grade of service. According to Grube, a "grade of service can be based on one or more metrics, including the predicted completion time for a message and an average message delay profile." (Column 5, line 9, *et seq.*). Subsequently, Grube teaches that the determination of a predicted completion time for a message "is based on the initial message length estimate 107" (column 5, line 46, *et seq.*), which is contained in a header of a voice and/or data message (column 3, line 61, *et seq.*). Thus, whereas a grade of service based on an initial message length contained in a message header, it is inherently **not** based on a prediction of a future data rate. Similarly, Grube teaches that an average message delay profile is based on "running averages of the transmission delays encountered for each message type" (column 6, line 52, *et seq.*). Thus, whereas a grade of service based on an average message delay is based on an historical measure of transmission delays, it is inherently **not** based on a prediction of a future data rate. Therefore, whereas anticipation requires that a prior art reference teach **every** element, or limitation, of a claimed invention, and Grube fails to teach the allocation of radio resources based on a predicted future data rate, claim 50 is not anticipated by Grube.

Whereas independent claim 57 includes analogous limitations, Grube also fails to anticipate that claim. Moreover, whereas claims 51-53 and 55 are dependent from claim

50, and claims 58-60 and 62 are dependent from claim 57, and include the limitations of their respective base claims, those claims are also not anticipated by Grube.

**3.) Claim Rejections – 35 U.S.C. §103(a)**

The Examiner has rejected claims 56 and 63 as being unpatentable over Grube in view of Heller (U.S. Patent Publication No. 2003/0043844 A1). The Applicants traverse the rejections.

As established *supra*, independent claims 50 and 57 are not anticipated by Grube. The Examiner has not pointed to any teaching in Heller to overcome the deficiencies in the teachings of Grube, therefore, claims 50 and 57 are patentable over Grube in combination with Heller. Therefore, whereas claims 56 and 63 are dependent from claims 50 and 57, respectively, and include the limitations thereof, they are also patentable over Grube in view of Heller.

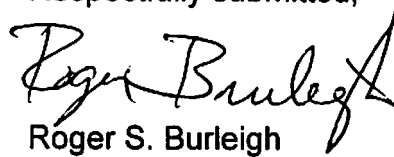
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**CONCLUSION**

In view of the foregoing remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicants, therefore, respectfully request that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 50-53, 55-60, 62 and 63.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,

  
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Date: February 25, 2010

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